

# Climate Change Agenda and Global Set of Climate Change Statistics and Indicators

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Session 5: Climate Change Statistics: Overview of international statistical frameworks and guidelines

National Workshop on Strengthening the Measure of Progress in Disaster Risk Reduction in Sub-Saharan Africa through the Sendai Framework Monitoring Process and Enhanced Disaster Loss Data

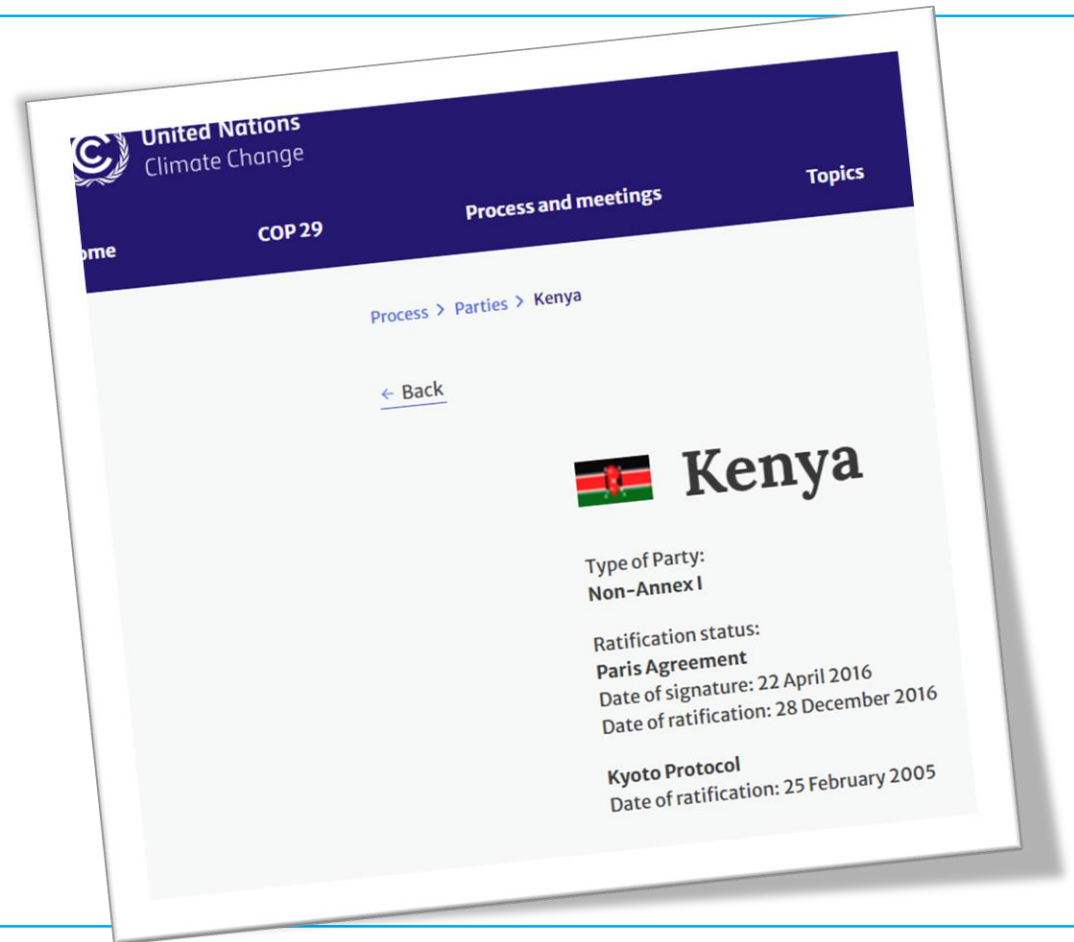
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# Why do we need climate change-related indicators and frameworks?

*Climate change is a global emergency that goes beyond national borders. It is an issue that requires international cooperation and coordinated solutions at all levels*

At the UN Climate Change Conference (COP21) in Paris in 2015, world leaders reached an agreement ([Paris Agreement](#)) that sets long-term goals to guide all nations to:

- substantially reduce global greenhouse gas emissions
- **assess the collective progress towards achieving the purpose of this agreement and its goals**
- provide financing to developing countries to mitigate climate change, strengthen resilience and enhance abilities to adapt to climate impacts



# The 2030 Agenda for Sustainable Development

The global indicator framework was adopted by the General Assembly on 6 July 2017 ([A/RES/71/313](#))



## **Goal 13. Take urgent action to combat climate change and its impacts**

**13.1.1** *Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population*

**13.1.2** *Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030*

**13.1.3** *Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies*

**13.2.1** *Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change*

**13.2.2** *Total greenhouse gas emissions per year*

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# The Global Set of Climate Change Statistics and Indicators

## Adoption

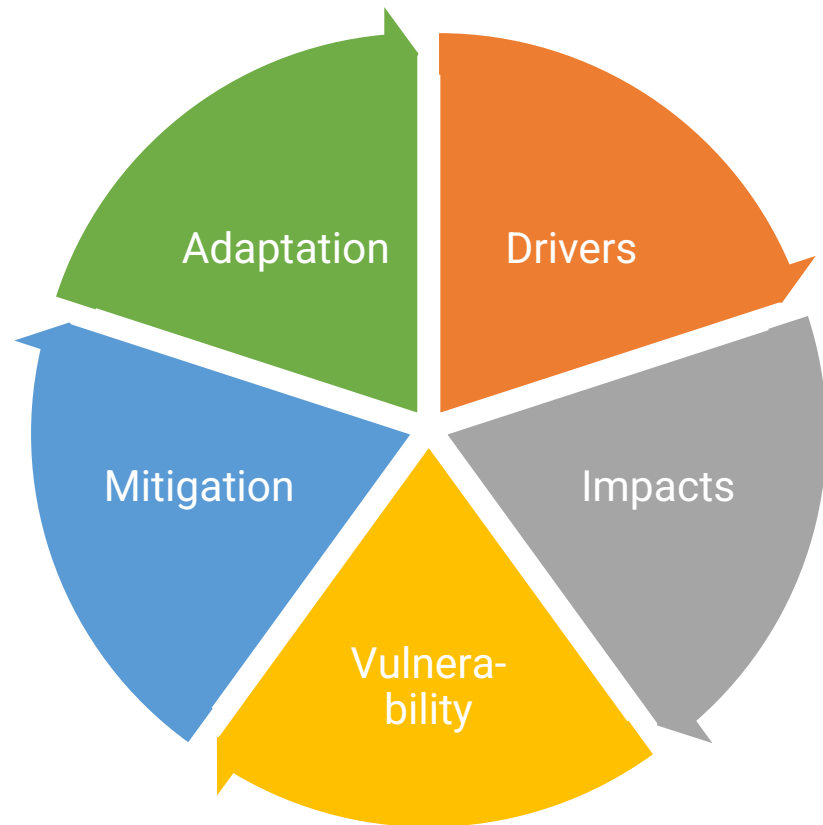


The [Global Set of Climate Change Statistics and Indicators](#) was adopted by the 53rd session of the Statistical Commission in March 2022, as a comprehensive statistical framework, with statistics, indicators and metadata, designed to support countries in preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources.

The Global Set was developed by the UN Statistics Division, in collaboration with the secretariat of the United Nations Framework Convention on Climate Change, to promote the policy and statistics interface.

# Structure: Policy areas

## Global Set of Climate Change Statistics and Indicators



The scope of [the Global Set of climate change statistics and indicators](#) covers the climate change aspects defined by the five policy areas of [the Intergovernmental Panel on Climate Change](#), namely drivers, impacts, vulnerability, mitigation and adaptation.

The links between policy and statistics are articulated according to the relevant articles of the [Paris Agreement](#) and the decisions of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement, as well as related [Sustainable Development Goal](#) and [Sendai Framework](#) indicators.

# Structure: Topics (1/2)

## Global Set of Climate Change Statistics and Indicators

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The **five policy areas** of the Intergovernmental Panel on Climate Change are broken down into **34 topics**.

- ❖ In each area are listed the most important indicators to describe the topics, thus providing guidance to countries developing national climate change statistics programmes in a comprehensive and balanced manner. For those indicators for which statistics with distinct methodology were identified, the statistics were included, too.

# Structure: Topics (2/2)

## Global Set of Climate Change Statistics and Indicators

| DRIVERS  | IMPACTS  | VULNERABILITY   | MITIGATION   | ADAPTATION  |
|--|--|---|--|---|
| <ul style="list-style-type: none"> <li>-Total greenhouse gas emissions</li> <li>-Atmospheric concentration of greenhouse gases</li> <li>-Energy production, supply and consumption</li> <li>-Fossil fuels</li> <li>-Population</li> <li>-Transport</li> <li>-Land and agriculture</li> </ul> | <ul style="list-style-type: none"> <li>-Agricultural production affected by climate change</li> <li>-Areas affected by climate change</li> <li>-Freshwater resources</li> <li>-Hazardous events and disasters</li> <li>-Climate change and human health</li> <li>-Climate change evidence</li> <li>-Soil condition</li> <li>-Distribution and status of species</li> <li>-Distribution and status of ecosystems</li> <li>-Production and consumption of materials</li> <li>-Climate change impacts on transport and critical infrastructure</li> <li>-Climate change impacts on tourism</li> </ul> | <ul style="list-style-type: none"> <li>-Water security, food security and agriculture</li> <li>-Vulnerable species, ecosystems and their services</li> <li>-Buildings and infrastructure vulnerable to climate change</li> <li>-Vulnerable population</li> <li>-Area of country vulnerable to climate change</li> </ul> | <ul style="list-style-type: none"> <li>-Renewable energy</li> <li>-Climate change mitigation policies, strategies and plans</li> <li>-Climate change mitigation technology and practice</li> </ul> | <ul style="list-style-type: none"> <li>-Climate change adaptation policies, strategies and plans</li> <li>-Risk management, disaster forecasting and early warning systems</li> <li>-Public awareness of and education on climate change</li> <li>-Area-based adaptation to climate change</li> <li>-Climate change monitoring</li> <li>-Water management</li> <li>-Waste management</li> </ul> |

# Structure: Indicators and Statistics

Global Set of Climate Change Statistics and Indicators

158 indicators

- serve to support developing and monitoring of national climate policies and international reporting requirements, in particular those under the Paris Agreement

190 statistics

- provide less complex options for countries with less developed statistical systems to initiate climate monitoring through official statistics
- provide statistics needed to compile the indicators (for Tier 1 and 2)
- provide inputs to further define and develop the Tier 3 indicators



# Tiers of Indicators and Statistics (1/2)

Global Set of Climate Change Statistics and Indicators

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## Tier 1

Indicators are relevant, methodologically sound and based on the global consultation responses for which at least 50 per cent of the countries have affirmed data availability

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## Tier 2

Indicators are relevant and methodologically sound, but with less than 50 per cent of the countries having affirmed data availability

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## Tier 3

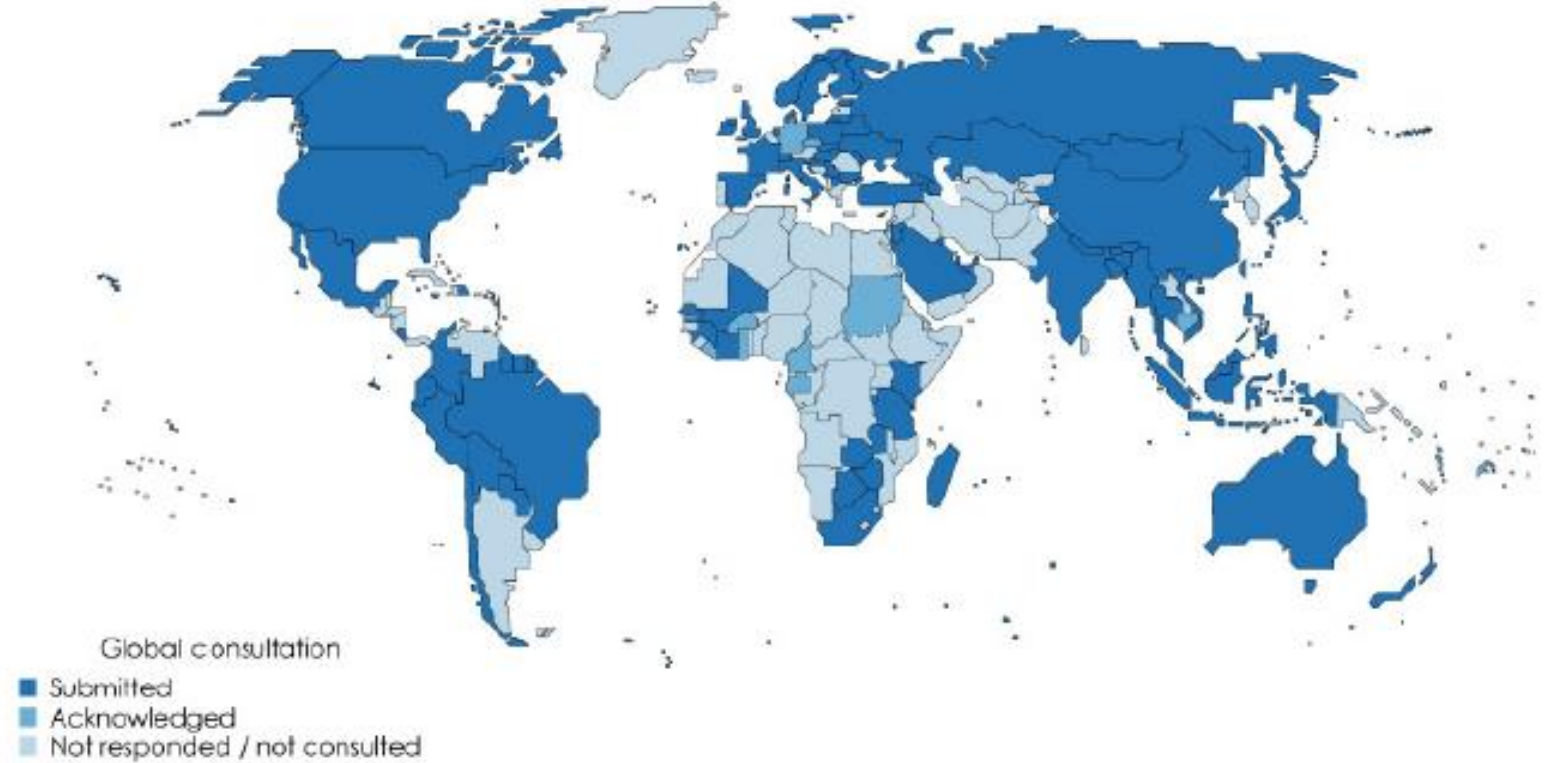
Indicators are relevant but not methodologically sound, meaning that even if country data may be available, no internationally agreed methodologies were identified

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# Tiers of Indicators and Statistics (2/2)

## Global Set of Climate Change Statistics and Indicators

Country and area submissions and acknowledgements to the global consultation on the draft Global Set of Climate Change Statistics and Indicators



Source: Global Set of Climate Change Statistics and Indicators. Implementation Guidelines. United Nations. New York, 2024

**Note:** The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

# Metadata

## Global Set of Climate Change Statistics and Indicators

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The **metadata** contain the following fields which **describe the indicator or statistic**:

- Belonging to a predefined set of areas and topics
- References to the relevant indicators or statistics of the climate-change initiatives and statistical frameworks
- A short definition and explanation of relevance to climate change policy
- Suggestions of national data sources, data collection methods, update frequency, category of measurement and potential aggregations and scales
- References to available international data collections and the applicable methodological guidance

# UNSD Environment Statistics page: Climate Change Statistics

<https://unstats.un.org/unsd/envstats/climatechange.cshtml>



TOPICS ▾

DATA ▾

METHODOLOGY ▾

EVENTS ▾

PUBLICATIONS


ABOUT ▾

## Environment Statistics

### Global Set of Climate Change Statistics and Indicators

The Global Set was adopted at the fifty-third session of the United Nations Statistical Commission in March 2022 as the framework for climate change statistics and indicators to be used by countries when preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources. See decision 53/116, Climate Change Statistics, in the [Final Report](#).

More information on the recent developments, planned activities and a brief description of the Global Set are included in the [Report of the Secretary-General](#) to the 53rd session of the Statistical Commission. This report is translated into the six UN languages and it contains Annex II listing all the indicators (also translated). All reports to and from the Statistical Commission sessions can be accessed from the first link below. National and regional examples of climate change publications can be accessed from the second link.

 [UNSD activities on Climate Change Statistics:](#) [Documents](#) [Conferences](#) [Side Events](#) [Workshops](#)

 [Climate Change Statistics Reports](#)

Following the 2022 adoption of the Global Set, UNSD has continued to collaborate with the United Nations Framework Convention on Climate Change (UNFCCC) to ensure the consistent and strengthened implementation of the Global Set in countries. This will assist member states' national statistical offices (NSOs) in collaboration with national climate policy authorities to be able, inter alia, to:

- ▶ develop national climate change statistical programmes;
- ▶ strengthen the capacity to monitor climate change impacts, adaptation and mitigation actions;

### Recent updates

- ▶ [UNSD Environmental Indicators](#) **new**
- ▶ [ENVSTATS newsletter #55](#) **new**
- ▶ [Eleventh Meeting of the Expert Group on Environment and Climate Change Statistics](#) **new**
- ▶ [Statistical Commission 55<sup>th</sup> session](#)
- ▶ [Statistical Commission Reports](#)
- ▶ [Side Event \(55<sup>th</sup> session of the Statistical Commission\)](#)

### Climate Change Statistics

- ▶ [Global Set of Climate Change Statistics and Indicators](#)
- ▶ [Climate Change Statistics and Indicators Self-Assessment Tool \(CISAT\)](#) **new**
- ▶ [Implementation Guidelines](#) **new**

# Thank you



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